	Application No.	Applicant(s)
Notice of Allowability	10/760,400	KIM, SO-YOUNG
	Examiner	Art Unit	
	Jean B Jeanglaude	2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *1-21-04*.

2. ☒ The allowed claim(s) is/are *1-19*.

3. ☒ The drawings filed on *21 January 2004* are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some*   c) ☐ None of the:
        1. ☒ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .
    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
        Paper No./Mail Date _____ .
    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____ .

Jean Bruner Jeanglaude
Primary Examiner

Reasons For Allowance

Claims 1 – 19 are allowable.

1.   The following is an examiner's statement of reasons for allowance: in combination with other limitations of the claims the prior arts made of record fail to suggest a coding data size training apparatus and method that comprise a neural network training unit which inputs the training data to an input layer of a neural network, and inputs the size of the training coding data to an output layer of the neural network so that the neural network is trained. Also, in combination with other limitations of the claims the prior arts made of record fail to suggest a coding data size selection apparatus and method that comprise a coding data estimation size receiving unit which inputs predetermined data to a neural network whose training is finished, and receives an estimation size of coding data corresponding to the predetermined data from the neural network. Moreover, in combination with other limitations of the claims the prior arts made of record fail to suggest a parallel variable length coding bitstream length training apparatus and method comprising a parallel neural network training unit which inputs the training quantization DCT coefficient block to input layers of a predetermined number of neural networks arranged in parallel, and inputs the length of the training bitstream to output layers of the predetermined number of neural networks so that the predetermined number of neural networks are trained. Furthermore, in combination with other limitations of the claims the prior arts made of record fail to suggest a video data compression method that inputs the generated quantization DCT coefficient block to a neural network whose training is finished, receiving an estimation length of a bitstream

corresponding to the quantization DCT coefficient block from the neural network, and receiving a user selection about the received estimation length; and if the estimation length is selected by the user, generating a bitstream by variable length coding a quantization DCT coefficient block corresponding to the selected estimation length.

2.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4.   Spirkovska et al. (US Patent Number 5,333,210) discloses a method and system for pattern analysis using a coarse-coded neural network.

5.   Austvold et al. (US patent Number 5,546,505) discloses a program product for facilitating use of a neural network.

6.   Nussbaum (US Patent Number 5,749,066) discloses a method and apparatus for developing a neural network for phoneme recognition.

7.   Moses et al. (US patent Number 6,035,177) discloses a simultaneous transmission of ancillary and audio signals by means of perceptual coding.

8.   Suarez et al. (US patent Number 6,128,346) discloses a method and apparatus for quantizing a signal in a digital system.

9.   Vetro et al. (US Patent Number 6,493,386) discloses an object based bitstream transcoder.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Jeanglaude whose telephone number is 571-272-1804. The examiner can normally be reached on Monday - Friday 7:30 A. M. - 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jean Bruner Jeanglaude
Primary Examiner
December 14, 2004